



**UNITED STATES DEPARTMENT OF COMMERCE
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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09/253,611 02/19/99 FARRAR

P 303.572US1

EXAMINER

MMC2/0125

THOMAS W LEFFERT
SCHWEGMAN LUNDBERG WOESSNER
AND KLUTH
P O BOX 2938
MINNEAPOLIS MN 55402

POMPEY, R
ART UNIT

PAPER NUMBER

2812
DATE MAILED:

7
01/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Advisory Action

Application No.
09/253,611

Applicant(s)

Farrar

Examiner

Ron Pompey

Group Art Unit

2812



THE PERIOD FOR RESPONSE: [check only a) or b)]

- a) ☒ expires 3 months from the mailing date of the final rejection.
- b) ☐ expires either three months from the mailing date of the final rejection, or on the mailing date of this Advisory Action, whichever is later. In no event, however, will the statutory period for the response expire later than six months from the date of the final rejection.

Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a), the proposed response and the appropriate fee. The date on which the response, the petition, and the fee have been filed is the date of the response and also the date for the purposes of determining the period of extension and the corresponding amount of the fee. Any extension fee pursuant to 37 CFR 1.17 will be calculated from the date of the originally set shortened statutory period for response or as set forth in b) above.

- ☐ Appellant's Brief is due two months from the date of the Notice of Appeal filed on _____ (or within any period for response set forth above, whichever is later). See 37 CFR 1.191(d) and 37 CFR 1.192(a).

Applicant's response to the final rejection, filed on Sep 26, 2000 has been considered with the following effect, but is NOT deemed to place the application in condition for allowance:

☒ The proposed amendment(s):

☐ will be entered upon filing of a Notice of Appeal and an Appeal Brief.

☒ will not be entered because:

- ☒ they raise new issues that would require further consideration and/or search. (See note below).
- ☐ they raise the issue of new matter. (See note below).
- ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.
- ☐ they present additional claims without cancelling a corresponding number of finally rejected claims.

NOTE: Newly added limitations. "having a diameter in a range of about 2.5 microns to no greater than 100 microns." requires further consideration and/or search.

- ☐ Applicant's response has overcome the following rejection(s):

☐ Newly proposed or amended claims _____ would be allowable if submitted in a separate, timely filed amendment cancelling the non-allowable claims.

☐ The affidavit, exhibit or request for reconsideration has been considered but does NOT place the application in condition for allowance because:

☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

☒ For purposes of Appeal, the status of the claims is as follows (see attached written explanation, if any):

Claims allowed: _____

Claims objected to: _____

Claims rejected: 1-23

☐ The proposed drawing correction filed on _____ ☐ has ☐ has not been approved by the Examiner.

☐ Note the attached Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Other

Art Unit: 2812


DETAILED ACTION

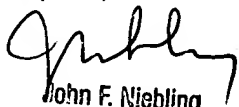
Response to Arguments

1. Applicant's arguments filed 1-9-01 have been fully considered but they are not persuasive. Applicant argues that Cook does not show immersion as a deposition technique or the metal contact having a predetermined diameter, for claims 1, 12-13 and 16.

However, Cook does state that the solder can be deposited by "evaporation or any other suitable means" and also, says a via is formed through the insulating layer, with a PLM (pad limiting metallurgy) formed inside, to the contact pad (col. 2, Ins. 1-5). Also, applicant argues that Thomas (US 4,661,375) teaches away from "annealing, vacuum evaporation, electroplating and that the via will inherently form a predetermined diameter, corresponding to the width/length of the via". Thomas discloses that solder can be deposited by vacuum evaporation, electroplating and immersion (col. 3, Ins. 49-55), that the area of the bonding pad effects the dimensions of the solder ball and an annealing (col. 4). Therefore the examiner previous rejections are upheld.

Any inquiry concerning this communication or earlier communications should be directed to Ron Pompey whose telephone number is (703) 305-3016.


Ron Pompey
Art Unit: 2812
January 23, 2001


John F. Niebling
Supervisory Patent Examiner
Technology Center 2800